“After a battle is over people talk a lot about how decisions were methodically reached, but actually there’s always a hell of a lot of groping around.”

ADM F.J. Fletcher, USN

Joint Process Review Team (JPRT)

COA Decision Brief –

Lines of Joint Experimentation

Briefing Purpose

The purpose of this brief is to enable the JCDE Enterprise O6 Development Team:

To reach a decision on which COA should be more fully developed and presented to the Executive Council as prioritized warfighter challenges and proposed lines of joint experimentation (LOJX) for the FY 09/10 CPLAN.

Why LOJX Matter

- **This process sets the organizational construct for the allocation of resources to enable the Joint Experimentation Enterprise to answer the most important challenges of the warfighter**

- **Used correctly, LOJX communicate the areas of work, provide a basis for decision making and provide the structure for a coherent DoD wide experimentation effort**

- **LOJX of themselves do not answer experimentation questions, but assist planners in focusing effort into areas that matter**

JPRT Deliverables – Draft EPG

Source: Appendix A 7 Dec 07 draft E

Step 1: WFC Submission

CJA Submitted WFC List

Outcome

Request for Clarification

Step 2: WFC list Refinement

Specified Tasks

2.1 Examine WFCs and recommend consolidation and combining
2.2 Ensure documentation
2.3 Default to highest org priority
2.4 Recommend WFCs to external processes

Outcome

Refined List of WFCs

Step 3: Production of a Prioritized WFC list

Specified Tasks

3.1 Utilize Initial Value (IV) or similar subjective criterion to rank each WFC, utilizing variation of model displayed in EPG
3.2 Track each orgs top 5 WFCs, compare to ultimate ranking.
3.3 Prepare audit trail of WFCs for enterprise

Outcome

Prioritized List of WFCs

Step 4: Production of a Grouped WFC list

Specified Tasks

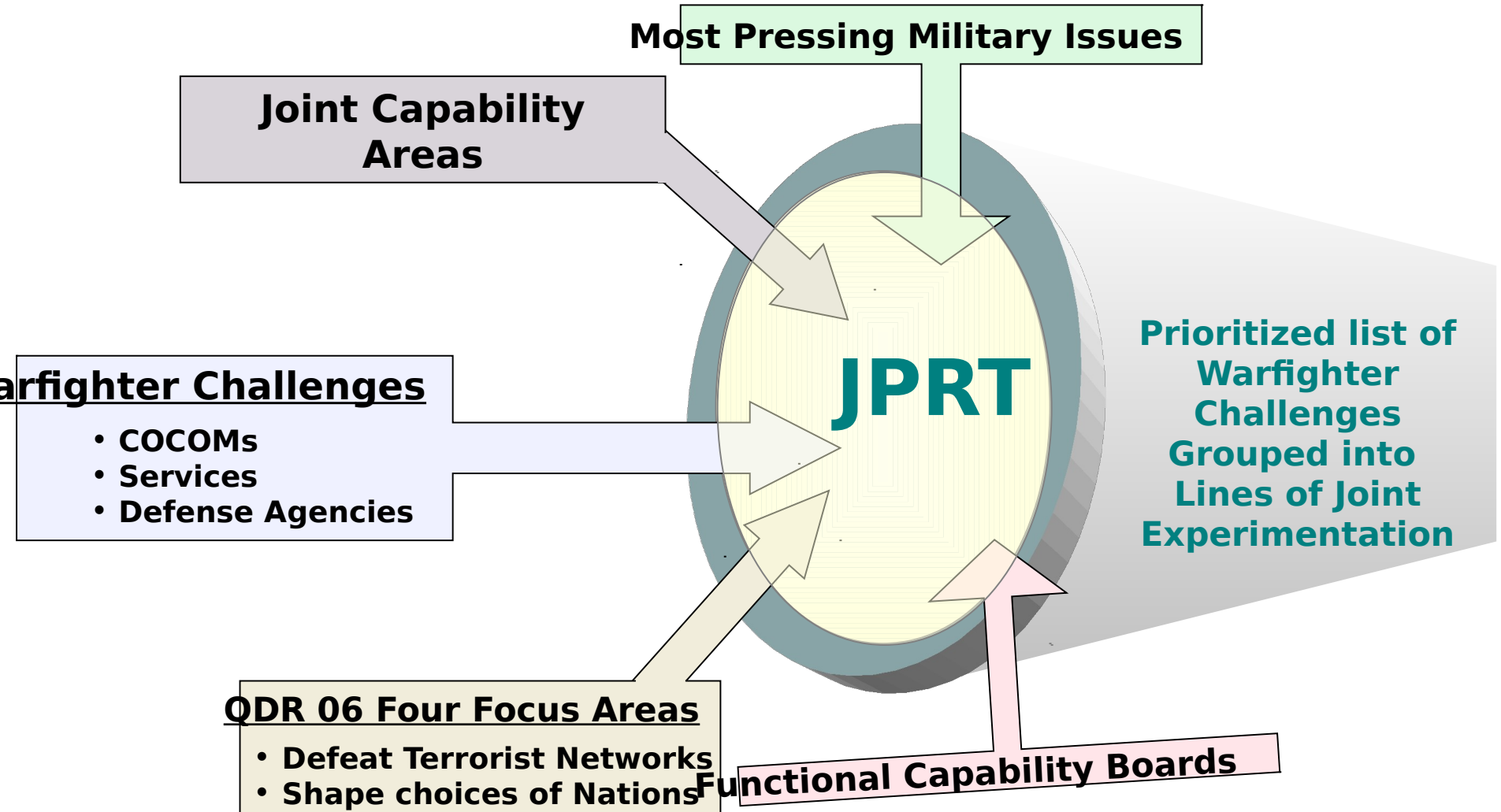
4.1 Group WFC's by primary Tier II JCA
4.2 Subgroup WFC's by secondary Tier II JCA
4.3 Use grouped WFC's to develop candidate lines of experimentation (LOJXs)

Outcome

WFCs grouped into candidate LOJX's

End State of January 06 Conference

Considerations for Development


Most Pressing Military Issues
Joint Capability Areas
arfighter Challenges
• COCOMs
• Services
• Defense Agencies
JPRT
Prioritized list of Warfighter Challenges Grouped into Lines of Joint Experimentation
QDR 06 Four Focus Areas
• Defeat Terrorist Networks
• Shape choices of Nations
• Defend the Homeland in Depth
• Prevent Hostile States/Non-State Actors from using WMD
Functional Capability Boards

Lines of Experimentation Defined

"A series of linked experiments that comprehensively address priority JCDE Enterprise experimentation requirements developed from a rigorous analysis, prioritization and grouping of related WFCs. They provide a body of knowledge to inform JCDE Enterprise members about the efficacy and appropriateness of potential solution sets. Lines of experimentation are specific to joint JCDE Enterprise experiments, as contrasted to other independent JCDE Enterprise member experiments or campaigns, such as JCTDs. Depending upon the mix of experimentation venues and techniques employed, a line of experimentation may span the entire JCDE CPLAN period (3 years or more) or it may be comprised of a set of extremely urgent and sharply focused events that span weeks or months instead of years."

Source: Draft EPG 7 Dec 07

LOJXs – JPRT Observations

- LOJXs must be flexible and tailored to experiment capacity in next phase of CPLAN development
- WFCs are mission/operation focused
  - Cross many Tier 1 JCAs
  - Often specific to Areas of Operation, but commonalities exist
- Balance of Near, Mid and Far Term WFCs
- Some LOJXs appear to be enduring
  - Should not change dramatically from year to year

LOJXs – JPRT Observations cont.

CPLAN process observations:

- **Affinity analysis was successful and backup the more simplified COAs presented here.**
- **Individual LOJXs cannot be compared solely by number of WFCs aligned within it**
  - **Combination of importance of individual WFCs with number of "hits"**
  - **Models provide the weighting factor of the LOJXs**
- **Coordination of Joint Experimentation efforts with the Capability Based Planning Process is essential**

Next stage of LOJX development will explore LOJX value to enterprise and experiment load or bandwidth requirements. These LOJX COAs can and probably will be reduced during CPLAN development and further during experimentation

JPRT Courses of Action Explored

COA #1: Joint Capability Areas (Tier 1) used as LOJXs

COA #2: LOJXs developed by affinity analysis of each organization's top 5 priority WFCs, with remainders grouped under these LOJXs

COA #3: LOJXs developed by affinity analysis of each organizations top 5 priority WFCs, includes the 4 QDR focus areas.

JPRT Recommended COA – COA #2

JPRT Recommends that the O6 Development Team approve COA #2, LOJXs developed by affinity analysis of each organizations top 5 priority WFCs, with remainders grouped under these LOJXs, for further development:

- **Can gain Enterprise support:**
  - **Best balance between JCA construct and concepts**
  - **Includes clear linkage to three QDR Focus Areas and supports the fourth - irregular warfare**
  - **Allows specific force projection breakout from logistics LOJX that focuses more on the process of sustaining the force**
  - **May consider multiple LOJXs for a WFC in future**
  - **As COA 3 was debated it merged toward COA 2 construct**
- **Most flexible:**
  - **LOJXs can be trimmed if needed in next phase of CPLAN development (CPLAN 08 carry forward and solution value)**
  - **Recognizes cross functional nature of most WFCs**
  - **Broad enough to allow "pop ups" to be organized under this construct**
- **Has Experiment Feasibility:**
  - **Spreads the WFCs more evenly among the LOJXs (max of 12 WFCs vice 21 in COA 3)**

Recommended COA: "COA #2 Lines of Experimentation based on Organization "Top 5"

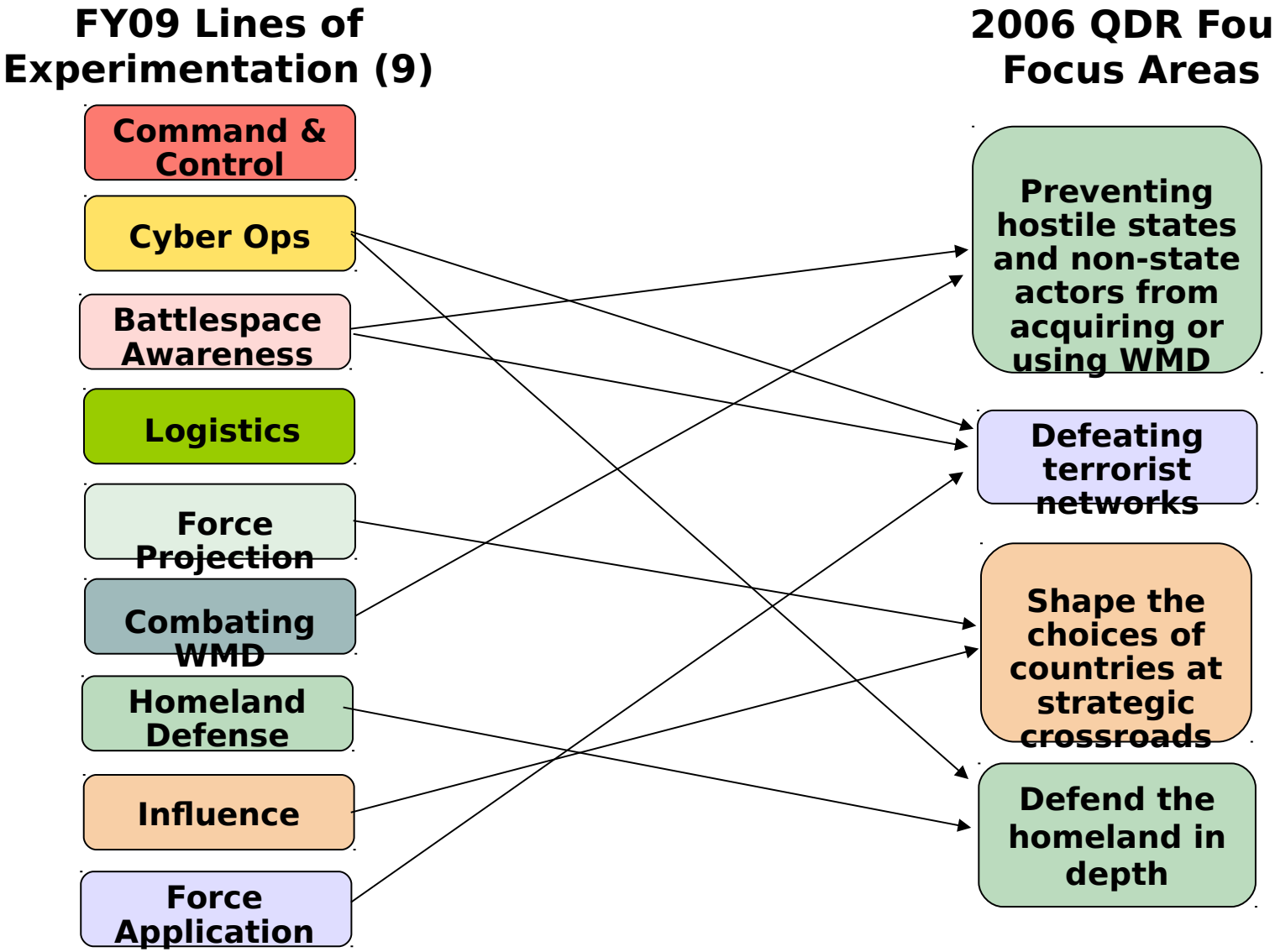
FY09 Lines of Experimentation (9)

- Command & Control
- Cyber Ops
- Battlespace Awareness
- Logistics
- Force Projection
- Combating WMD
- Homeland Defense
- Influence
- Force Application

Joint Capability Areas (9)

- Command & Control
- Net-Centric
- Battlespace Awareness
- Protection
- Logistics
- Force Support
- Force Application
- Influence
- Corporate Mgmt & Spt

Recommended COA: "COA #2 Lines of Experimentation based on Organization "Top 5"



Recommended COA: COA #2 Lines of Experimentation based on Organization "Top 5"

- Command & Control
- Battlespace Awareness
- Logistics
- Force Projection
- Influence
- Cyber Ops
- CWMD
- Homeland Defense
- Force Application

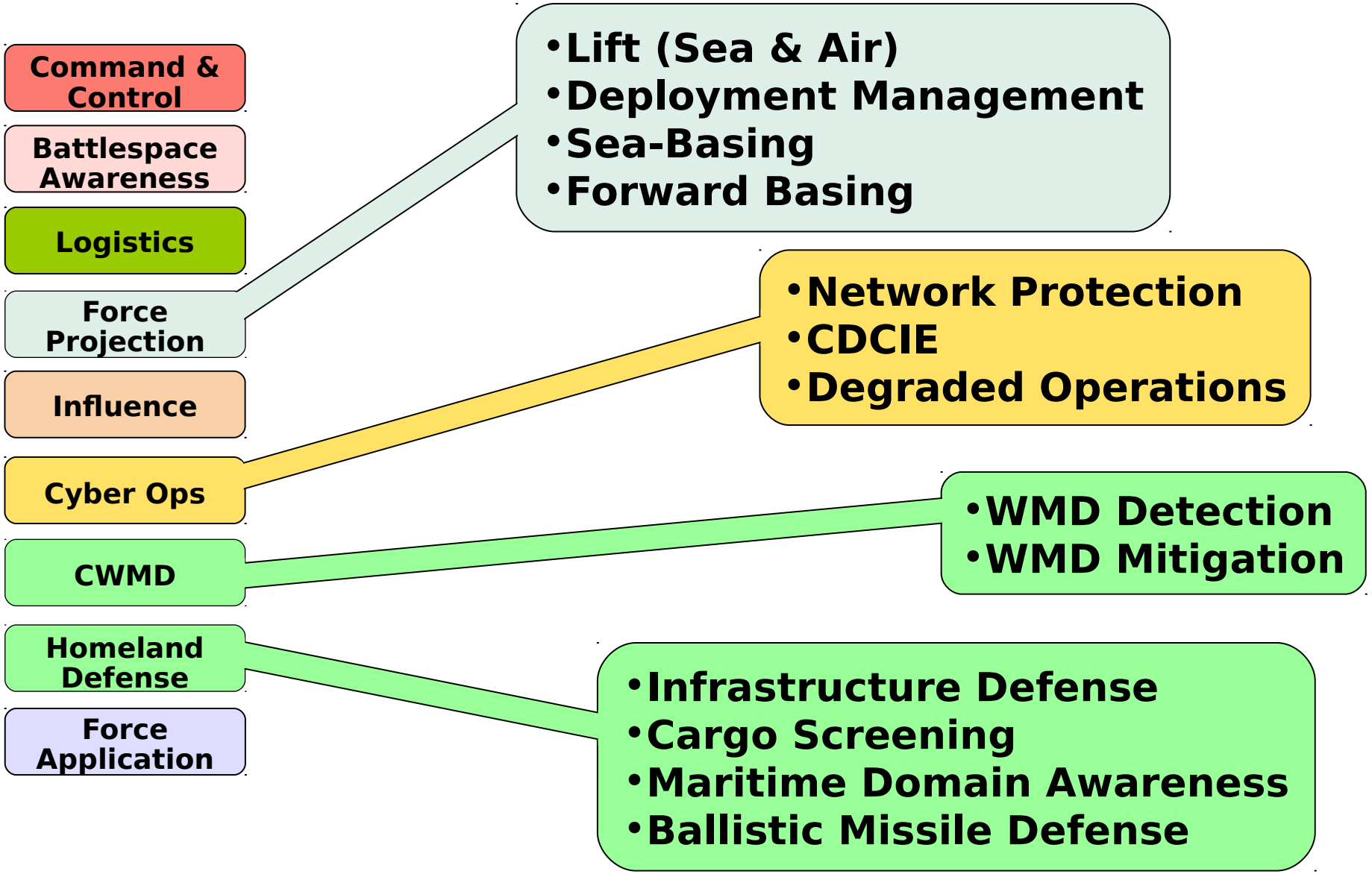
Warfighter Challenge Breakdown

- Command & Control – 14 Warfighter Challenges
- Battlespace Awareness – 14 Warfighter Challenges
- Logistics – 5 Warfighter Challenges
- Force Application – 5 Warfighter Challenges
- Cyber Operations – 4 Warfighter Challenges
- Influence – 10 Warfighter Challenges
- Homeland Defense – 6 Warfighter Challenges
- Force Projection – 3 Warfighter Challenges
- Combating WMD – 4 Warfighter Challenges

Count may vary, pending further analysis

Enterprise inputs support performing significant work in all 9 proposed LOJXs

COA #2 Examples of LOJX sub topics



COA #2 Cons

- By not directly utilizing the JCA construct in all cases the use of WFC to JCA linkage is essential.
  - Transition issues
  - Linkage to FCBs
- LOJXs still force some “outliers” into bins that may not capture the essence of the WFC
  - Highlights critical nature of experimentation question
- LOJXs built off 65 WFCs only
  - JPRT analysis shows that LOJXs would not significantly change
    - If all were considered
    - Or by reducing to top 50 warfighter challenges (to be verified)

COA # 1 – Tier 1 JCAs as LOJXs

COA #1 LOJX By JCA

Functional Capability Boards (8)

- Command & Control
- Net-Centric
- Battlespace Awareness
- Protection
- Logistics
- Force Management
- Force Application
- Joint Training

Joint Capability Areas (9)

- Command & Control
- Net-Centric
- Battlespace Awareness
- Protection
- Logistics
- Force Support
- Force Application
- Influence
- Corporate Mgmt & Spt

FY09 Lines of Experimentation (9)

- Command & Control
- Net-Centric
- Battlespace Awareness
- Protection
- Logistics
- Force Support
- Force Application
- Influence
- Corporate Mgmt & Spt

COA #1 Pros

- JCAs are intended to provide a common capabilities language for use across many related DOD activities and processes
  - Provides instant recognition to the JCDE Enterprise's lines of work
  - Lends itself to LOJX sponsorship and may aid in transition of "winners"
- Linkage to Tier 1 JCA performed by submitting organization, rather than JPRT
  - Submitter knows best where shot should be placed
- Broad enough to span the spectrum of military capabilities
  - Enterprise can legitimately claim coverage of all potential areas of work, and place new "pop up" requirements inside the construct

COA #1 Cons

- **WFCs are mission focused and often cross the artificial boundaries of the JCA construct**
  - **Recognized by submitters who linked most WFCs to more than one Tier 1 JCA**
- **Many WFCs fall in tight groupings among a few Tier 2 JCAs**
  - **Lends itself to a more precise LOJX, often mission focused**
- **Forces binning of conceptual or operational experimentation needs into a capability format**
- **Placement only as good as submitting organization made it**
  - **Some WFCs could be shifted to a more accurate JCA**

COA # 3 - LOJXs developed by Affinity Analysis of each organizations top 5 priority WFCs, grouped by the four focus areas of the QDR

COA #3 Lines of Experimentation based on Organization "Top 5"

FY09 Lines of Experimentation (9)

- Command & Control
- Cyber Ops
- Persistent ISR
- Logistics
- Traditional Warfare
- Combating WMD
- Homeland Defense
- Influence
- Irregular Warfare

Joint Capability Areas (9)

- Command & Control
- Net-Centric
- Battlespace Awareness
- Protection
- Logistics
- Force Support
- Force Application
- Influence
- Corporate Mgmt & Spt

COA #3 Pros

- Direct tie to QDR Focus Areas of long war
  - IW, CWMD, Shaping (Influence) and Homeland Defense
- Supports longer term warfare directly in Traditional Warfare LOJX
- Continues use of JCA construct & recognizes cross JCA nature of many WFCs
- LOJXs are still broad enough to allow “pop up” requirements to be accurately binned
- Tie in for Enterprise membership more apparent

COA #3 Cons

- By not directly utilizing the JCA construct in all cases the use of WFC to JCA linkage is essential.
  - Transition issues
  - Linkage to FCBs a function of experimental analysis
  - Non-DoD recognized terminology
- LOJXs still force some “outliers” into bins that may not capture the essence of the WFC
  - Highlights critical nature of experimentation question
- LOJXs built off 65 WFCs only
  - JPRT analysis shows that LOJXs would not significantly change if all were considered

Weighting Lines of Experimentation

- **Regardless of which COA decided on, a method must be determined to compare the importance of each LOJX against another**
  - **Number of WFC hits not adequate alone**
  - **Must weigh the priority of each WFC in the LOJX**

- **USJFCOM J9 Analysis Division proposes the following methodology to weigh LOJX:**
  - **Determine overall average score across all LOJX**
  - **Weight = (# of WFCs with overall average score or greater) x (overall average score)**

OPEN DISCUSSION & COA DECISION

Decisions Required:

1. COA #1 (JCA Construct) or,
   COA #2 (Affinity of Top 5) or,
   COA #3 (Top 5 affinity meets QDR)

2. LOJX Weighting Model

BACK UP SLIDES